

## Patent Abstracts of Japan

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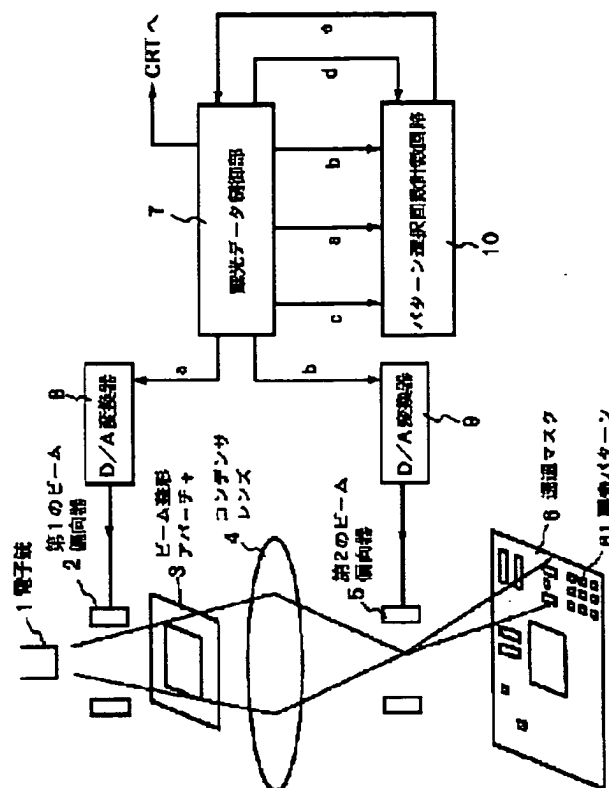
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G03F 7/20

TITLE : CHARGED PARTICLE BEAM  
EXPOSURE SYSTEM AND LIFETIME  
JUDGING METHOD OF LIGHT  
TRANSMITTING MASK



ABSTRACT : PROBLEM TO BE SOLVED: To enable a transmission mask used for the exposure of a pattern be replaced before the pattern on the mask is deformed by a method wherein the frequency in use of an element pattern is counted.

SOLUTION: The frequency of selection of each element pattern 61 formed on a transmission mask 6 for exposure is counted through a pattern selection frequency counting circuit 10, and the frequency of irradiation of each element pattern 61 is transmitted as data to an exposure data control 7. The exposure data control 7 compares the inputted frequency of selection of each element pattern with a previously set frequency of warning level, and when it is found that the inputted frequency of selection is larger than the previously set frequency of warning level, an indication that the frequency of selection of a pattern is over a previously set frequency is displayed on a CRT, and an alarm lamp is turned on. On the other hand, when the inputted frequency of selection is smaller than the previously set frequency of warning level, the ratio of the inputted frequency of selection to the previously set frequency of warning level is displayed on a CRT.

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